Amdt. Dated February 13, 2007

Reply to Office Action of October 13, 2006

Attorney Docket No. 81872.0051 Customer No.: 26021

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in

the application:

Listing of Claims:

1-12. (Canceled)

13. (Currently amended) A dry etching method for producing a

solar cell comprising:

placing a substrate to be etched for a solar cell on an RF electrode

provided inside a chamber, directly or through a tray;

covering said substrate to be etched with a plate, wherein said plate comprises an obstacle with a plurality of obstacle forming members that inhibit a

part of gas and plasma from passing through said plate; and

forming fine fixtures textures on a surface of said substrate to be

etched by a reactive ion etching method:

wherein said plate comprises an obstacle with a plurality of obstacle

forming members that inhibit a part of gas and plasma from passing through said plate by using residues being chiefly composed of components of said substrate as

an etching mask.

14. (Currently amended) The dry etching method for producing a

solar cell according to Claim 13, wherein said substrate to be etched is made of

silicon.

Appl. No. 10/650,505 Attorney Docket No. 81872.0051 Amdt. Dated February 13, 2007 Customer No.: 26021

Reply to Office Action of October 13, 2006

15. (Currently amended) The dry etching method for producing a solar cell according to Claim 13, wherein said plate covers said substrate to be etched while a distance of 5 mm to 30 mm is between the substrate and plate.

16-17. (Canceled)

 $18. \hspace{0.5cm} \hbox{(Currently amended)} \hspace{0.5cm} A \hspace{0.5cm} \frac{d_{FY} \hspace{0.5cm} etching}{d_{FY} \hspace{0.5cm} etching} \hspace{0.5cm} method \hspace{0.5cm} \frac{for \hspace{0.5cm} producing \hspace{0.5cm} a}{solar \hspace{0.5cm} cell}, comprising:$

placing a substrate to be etched on an RF electrode provided inside a chamber, directly or through a tray;

covering said substrate ${\color{blue} \mathbf{to}}$ be etched with a plate provided with a number of opening portions; and

etching the substrate by a reactive ion etching method;

wherein fine textures are formed on a surface of said substrate to be etched and said plate is cleaned on a surface side concurrently.

19. (Currently amended) The dry etching method for producing a solar cell according to Claim 20, wherein said dry etching method is first substrate is etched by a reactive ion etching method.

Amdt. Dated February 13, 2007

Reply to Office Action of October 13, 2006

Attorney Docket No. 81872.0051 Customer No.: 26021

 (Currently amended) A dry etching method for producing a solar cell comprising:

placing a <u>first</u> substrate to be etched <u>for a solar cell</u> on an RF electrode provided inside a chamber, directly or through a tray; and

covering said $\underline{\text{first}}$ substrate $\underline{\text{to be etched}}$ with a plate provided with a number of opening portions;

wherein <u>forming</u> fine textures are formed on a surface of said <u>first</u> substrate to be etched and <u>cleaning</u> said plate is eleaned on a surface side concurrently,

wherein placing a second substrate to be etched next is placed inside a the chamber, with said plate positioned such that a the surface side and a back surface side thereof are being reversed after said plate is cleaned on the surface side, and forming fine textures are formed on a surface of said second substrate to be etched next.

21-22. (Canceled)

- 23. (Currently amended) The dry etching method for producing a solar cell according to Claim 13, wherein an opening portion is provided between neighboring obstacle forming members.
- (Currently amended) The dry etching method for producing a solar cell according to Claim 23, wherein an open area ratio of said obstacle is 5 to 40%.
- 25. (Currently amended) The dry etching method for producing a solar cell according to Claim 13, wherein said obstacle forming members are a plurality of long members aligned with a clearance in between.

Amdt. Dated February 13, 2007

Reply to Office Action of October 13, 2006

Attorney Docket No. 81872.0051 Customer No.: 26021

26. (Currently amended) The dry etching method <u>for producing a solar cell</u> according to Claim 25, wherein said long member is a bar-shaped or sheet member.

- 27. (Currently amended) The dry etching method for producing a solar cell according to Claim 13, wherein said obstacle forming member comprises a mesh woven by crossing said plurality of long members over and under with each other.
- 28. (Currently amended) The dry etching method for producing a solar cell according to Claim 13, wherein said obstacle comprises a plurality of obstacles of a stacked structure.
- 29. (Currently amended) The dry etching method for producing a solar cell according to Claim 28, wherein said obstacle comprises a member formed by stacking a plurality of long members aligned with a clearance in between, in different directions.
- 30. (Currently amended) The dry-etching method for producing a solar cell according to Claim 13, wherein said obstacle forming member is made of one kind or a combination of two or more kinds selected from a group consisting of materials (a), (b), and (c) as follows:
 - (a) a glass-based material;
 - (b) a metal material; and
 - (c) a resin material.
- 31. (Currently amended) The dry etching method for producing a solar cell according to Claim 30, wherein said metal material is an aluminum-based material

Appl. No. 10/650,505 Attorney Docket No. 81872.0051 Amdt. Dated February 13, 2007 Customer No.: 26021

Reply to Office Action of October 13, 2006

32. (Currently amended) The dry etching method for producing a solar cell according to Claim 18, wherein said plate is structured in such a manner that a surface and a back surface can be reversed.

- 33. (Currently amended) The dry-etching method for producing a solar cell according to Claim 32, wherein the surface and the back surface of said plate are of substantially a same shape.
- 34. (Currently amended) A dry etching method for forming fine textures on a surface of a substrate to be etched, said dry etching method producing a solar cell comprising:

placing a substrate $\frac{1}{100}$ be etched for a solar cell on an RF electrode provided inside a chamber, directly or through a tray;

covering said substrate to be etched with a plate comprising an obstacle that provided with a number of opening portions, wherein said plate inhibits a part of a gas and plasma from passing through said plate; and

etching the substrate by a reactive ion etching method;

wherein a member forming said obstacle is provided with a number of opening portions forming fine textures on a surface of said substrate by using residues being chiefly composed of components of said substrate as an etching mask.

35. (Currently amended) The dry etching method for producing a solar cell according to Claim 34, wherein an open area ratio of said obstacle is 5 to 40%.

Amdt. Dated February 13, 2007

Reply to Office Action of October 13, 2006

Attorney Docket No. 81872.0051 Customer No.: 26021

36. (Currently amended) The dry etching method for producing a solar cell according to Claim 34, wherein said substrate to be etched is made of silicon.

- 37. (Currently amended) The dry etching method for producing a solar cell according to Claim 34, wherein said plate covers said substrate to be etched while a distance of 5 mm to 30 mm is between the substrate and plate.
 - 38. (Canceled)
- 39. (Currently amended) The dry etching method for producing a solar cell according to Claim 34, wherein said obstacle is made of one kind or a combination of two or more kinds selected from a group consisting of materials (a), (b), and (c) as follows:
 - (a) a glass-based material:
 - (b) a metal material; and
 - (c) a resin material.
- (Currently amended) The dry etching method for producing a solar cell according to Claim 39, wherein said metal material is an aluminum-based material.
- 41. (New) The method for producing a solar cell according to Claim 34, wherein said substrate is etched by a reactive ion etching method..